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December 21, 2022

Cheryl Laskowski Transportation Fuels Branch Chief California Air Resources Board P.O. Box 2815 Sacramento, CA 95812-2815

Subject: Comments on the California Air Resources Board Low Carbon Fuel Standard Workshop held November 9, 2022

Dear Dr. Laskowski:

Southern California Gas Company (SoCalGas) appreciates the opportunity to provide comments on the California Air Resources Board (CARB) Low Carbon Fuel Standard (LCFS) workshop held on November 9, 2022. SoCalGas understands and supports Staff's objective to align the LCFS program with forthcoming regulations and CARB's 2022 Scoping Plan for Achieving Carbon Neutrality (2022 SP). The LCFS has been an important program for accelerating the use of alternative fuel, and while we appreciate that CARB is looking at ways to modify and improve the program there is concern among stakeholders that the renewable natural gas (RNG)-related concepts raised by CARB staff at the workshop, signaling a reduction of RNG eligibility, is premature and may negatively impact additional RNG development.

As such, SoCalGas' comments highlight the following: 1) the phase-down of avoided methane crediting is premature; 2) biomethane Book & Claim Eligibility should not be limited; 3) instituting an Industrial Clean Fuels Standard will help to decarbonize the industrial sector.

1) The phase-down of avoided methane crediting is premature

Phasing out credits for avoided methane emissions as presented at the workshop is premature and could slow the State's efforts to reduce short-lived climate pollutants (SLCP) emissions as required by SB 1383 (Lara, 2016). CARB's March 31, 2022, workshop on dairy manure renewable natural gas (RNG) and Senate Bill 1383 make it clear that the LCFS program is a key driver at reducing methane emissions, which is critical to California achieving its climate goals. According to the United Nations' Global Methane Assessment, methane mitigation efforts are "very likely to be the most powerful lever

in reducing near-term warming."¹ The key to implementing this decarbonization strategy will be increased production of RNG from investment in new production facilities supported by incentives and a level of certainty in the RNG market. It is critical for CARB to continue to incentivize methane reduction projects to support the methane reduction target of 40 percent below 2013 levels by 2030 in SB 1383 and the SB 32 2030 climate target. In adopting SB 1383, the legislature understood the economic uncertainty associated with the value of environmental credits such as those generated by the LCFS program and thus required state agencies to adopt policies and incentives to increase the *sustainable production and use* of renewable gas and specifically directed CARB to develop a pilot financial mechanism to reduce the economic uncertainty associated with dairy-related projects and to make recommendations to the legislature for expanding the mechanism to other sources of biogas.

The assumption presented at the workshop appears to indicate the belief that stopping certification in 2030 of new fuel pathways with avoided methane would lead to more biomethane projects before this 2030 deadline. However just presenting this assumption at the workshop has already prompted uncertainty among stakeholders in the RNG market. At the workshop, CARB staff recognized that there has been significant private capital invested in biogas production and expressed that there is a need to avoid stranded assets, yet the concept of phasing down avoided methane crediting may trigger stranded assets. CARB should not phase out credit for avoided methane emissions from biomethane before there is a viable alternative market to ensure that California's progress on SLCP reductions does not slow down or reverse. We support the policy direction in the 2022 SP for long-term deployment and use of biomethane for hydrogen production and expanding use of biomethane in non-transportation sectors; however, appropriate transition time and availability of alternative options are necessary prior to any LCFS phase-down.

2) Biomethane Book & Claim Eligibility should not be limited

CARB suggests the book & claim (B&C) policy for renewable natural gas should be harmonized with that for electricity, yet the interstate natural gas transportation system is not like the interstate electric transmission system. The U.S. Energy Information Administration describes the U.S. natural gas pipeline network as "a highly integrated network that moves natural gas throughout the continental United States." ² While the interstate electric transmission system has known gaps in connectivity between the Western Interconnection, Eastern Interconnection and Texas³ electricity transmission systems, there is no defined "Western Natural Gas network" as suggested during the workshop.

SoCalGas respectfully cautions against taking actions that while well-intended, may have unintended consequences. We are concerned by CARB's desire to limit RNG. The California Public Utilities Commission (CPUC) made a similar limitation in the 2011 Self-Generation Incentive Program (SGIP) and it did not help stimulate the California market for RNG but rather slowed it down. In 2009, the

¹ See "Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions," United Nations Environment Programme and Climate and Clean Air Coalition, May 5, 2021, pg. 21, available at: https://www.unep.org/resources/report/global-methane-assessment-benefits-and-costs-mitigating-methane-emissions.

 ² See "Natural Gas Explained Natural Gas Pipelines," U.S. Energy Information Administration (EIA), updated November 18, 2022, available at: https://www.eia.gov/energyexplained/natural-gas/natural-gas-pipelines.php.

³ See "Background The Bulk Power System," Western Electricity Coordinating Council (WECC), accessed on December 6, 2022, available at: <u>https://www.wecc.org/epubs/StateOfTheInterconnection/Pages/The-Bulk-Power-System.aspx</u>.

CPUC made directed biogas eligible for an extra SGIP incentive and there were 58 direct biogas applications paid out from 2009 - 2011. In 2011, the CPUC revised the requirements for the procurement of directed biogas to allow only California Sourced renewable gas (D.11-09-015 at 22). The reduced availability of directed biogas in California at that time, the increased costs associated with in-state contracts, and the elimination of the eligibility of out-of-state biogas essentially eliminated all directed biogas applications in SGIP. While the market and program have changed since that time, there still have been only two directed biogas contracts paid out since 2011. Furthermore, the change did not increase the number of onsite projects. Prior to 2011, 52 onsite projects were paid out and from 2011 - 2022, there were 51 onsite projects paid out.

Additionally, CARB should not limit landfill gas eligibility to hydrogen production only. If CARB makes these changes to the B&C allowance in the LCFS regulation, it could cause further uncertainty in the market or serve to redirect current out-of-state biomethane elsewhere. With these restrictions only in California, non-western biomethane could still be used as transportation fuel in other jurisdictions outside of California where it may continue to earn federal credits under the Renewable Fuel Standard Program and possibly credits from other states, e.g., under Oregon's LCFS program. Furthermore, limiting the market to the western region and restricting landfill gas eligibility would reduce the volume of RNG in state which may be necessary to help decarbonize the industrial sector. Given these considerations, biomethane book & claim eligibility should not be limited to western states and landfill gas should not be restricted to hydrogen production.

3) An Industrial Clean Fuels Standard will support industrial sector decarbonization

California's industrial sector has proven hard-to-decarbonize and remains a significant source of GHG emissions that must be addressed to achieve the State's carbon neutrality goals. California's industrial sector accounts for 33 percent (or 661 billion cubic feet) of the State's natural gas consumption, contributes 23 percent of the State's GHG emissions, and has the second highest emissions reduction potential for meeting the 2030 targets as set forth in SB 350.⁴ Process heat accounts for about 85 percent of industrial natural gas use in California.⁵ Typical industrial process heating equipment includes boilers, furnaces, and evaporators, which produce heat via natural gas combustion as well as combined systems that produce both heat and electric power. Decarbonizing industrial facilities will require both electrification and changing the current fuel mix to a combination of RNG, solar thermal heat, green hydrogen, and low carbon, zero carbon and carbon negative fuels.

As the adopted 2022 SP recognizes, changes in fuel use are critical to reducing GHG emissions from the industrial sector: "Decarbonizing industrial facilities depends upon displacing fossil fuel use with a mix of electrification, solar thermal heat, biomethane, low- or zero-carbon hydrogen, and other low-carbon fuels to provide energy for heat and reduce combustion emissions."⁶ A transition to low-carbon gaseous fuels is especially important for industrial processes not easily electrified: "There are fewer

⁴ See "Optionality, flexibility & innovation pathways for deep decarbonization in California," Energy Futures Initiative, May 1, 2019, available at: <u>https://energyfuturesinitiative.org/reports/optionality-flexibility-innovation/</u>.

⁵ See "California Industrial Energy Efficiency Market Characterization Study," XENERGY Inc., December 2001, available at <u>http://www.calmac.org/publications/California%20Ind%20EE%20Mkt%20Characterization.pdf</u>.

⁶ See "2022 Scoping Plan for Achieving Carbon Neutrality," California Air Resources Board (CARB), published November 16, 2022, pg. 207, available at: <u>https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp.pdf</u>.

commercially available and economically viable electrification options to replace industrial processes that require higher-temperature heat. For these processes, onsite combustion may continue to be needed, and decarbonization will require fuel substitution to hydrogen, biomethane, or other low-carbon fuels."⁷ The adopted 2022 SP identifies a need for new regulation to motivate and accelerate electrification and the uptake of low-carbon fuels by the industrial sector: "Policies that support decarbonization strategies like electrification, use of renewable energy, and transition to alternative fuels are needed."⁸

To incentivize the use of biomethane in hard-to-abate sectors, CARB could expand the LCFS program outside of transportation or use the LCFS program as an example to develop and adopt an Industrial Clean Fuel Standard that would complement the LCFS. Such a standard could impose a decreasing, rate-based target on regulated entities, allowing the industrial sector to achieve emission reductions in a technology neutral manner by choosing between electrification, procuring low- and zero-carbon and carbon-negative fuels, and/or improving energy efficiency. An Industrial Clean Fuel Standard would achieve significant reductions at least cost by enabling compliance flexibilities and harnessing technological innovation.

The current LCFS program is providing critical support to the RNG market. Because a significant amount of RNG usage today is occurring in the transportation sector, the LCFS program holds continued importance as the State explores opportunities to incentivize RNG use in other sectors. Competitive pricing and availability of supply will be critical when looking to expand RNG usage to other hard-to-abate sectors. For these reasons, SoCalGas recommends that discussions on the potential development of an Industrial Clean Fuel Standard happen in parallel with ongoing support provided for RNG through the current LCFS.

Conclusion

SoCalGas appreciates the opportunity to provide comments and engage with CARB and stakeholders to improve the Low Carbon Fuel Standards Program. SoCalGas is committed to a collective, collaborative transition to cleaner energy, and we look forward to further collaboration and future workshops. A well-designed plan, incorporating RNG, will help propel the State toward a clean, resilient, and reliable energy backbone to fortify California's future.

Respectfully,

/s/ Kevin Barker

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⁷ Ibid., CARB's 2022 Scoping Plan for Achieving Carbon Neutrality, pg. 209.

⁸ *Ibid.*, CARB's 2022 Scoping Plan for Achieving Carbon Neutrality, pg. 207.